George H. Partlowe
Ohio Mattress Licensing and Components Group
1132 North Cullen Street
Rensselaer, Indiana 47978

Re: Renewal of Registered Operation Status,
073-12988-00023

Dear Mr. Partlewe:

The application from Ohio Mattress Licensing and Components Group, received on November 15, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following mattress manufacturing operation, to be located at 1132 and 1133 North Cullen Street, Rensselaer, Indiana, 47878, is classified as registered:

(a) One (1) natural gas-fired makeup heater, rated to 1.0 MMBtu/hr.

(b) Three (3) lubricating oils using a mixture of #2 diesel and Rando 32 (hydraulic) oils and dry slide (a silica based lubricant).

(c) One (1) Cannon U.S.A. cold cure injection head.

(d) One (1) natural gas-fired annealing oven rated at 6.0 MMBtu/hr.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minute (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

This registration is a registration renewal issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/RB

cc: File - Jasper County
Jasper County Health Department
Northern Regional Office
Air Compliance - Eric Courtright
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name:	**Ohio Mattress Licensing and Components Group**
Address:	**1132-1133 North Cullen Street**
City:	**Rensselaer, Indiana**
Authorized individual:	**George H. Partlewe**
Phone #:	**(219) 866-7181**
Registration #:	**073-12988-00023**

I hereby certify that Ohio Mattress Licensing and Components Group is still in operation and is in compliance with the requirements of Registration 073-12988-00023.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management (IDEM)
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Ohio Mattress Licensing and Components Group
Source Location:	1132 and 1133 North Cullen Street, Renesselaer, Indiana 47978
County:	Jasper
SIC Code:	3495
Operation Permit No.:	073-12988-00023
Permit Reviewer:	ERG/RB

The Office of Air Quality (OAQ) has reviewed an application from Ohio Mattress Licensing and Components Group, relating to the operation of a mattress manufacturing facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices:

(a) One (1) natural gas-fired makeup heater, rated to 1.0 MMBtu/hr.

(b) Three (3) lubricating oils using a mixture of #2 diesel and Rando 32 (hydraulic) oils and dry slide (a silica based lubricant).

(c) One (1) Cannon U.S.A. cold cure injection head.

(d) One (1) natural gas-fired annealing oven rated at 6.0 MMBtu/hr.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP-073-4416-00023 issued May 30, 1995.

(b) CP-073-9564 issued April 24, 1998.

All conditions from previous approvals were incorporated into this permit except the following:

The molding release agent applicator and the electric infrared heating units included in both previous permits was never installed and are not included in this registration.

Source Definition

This company consists of two (2) plants:

(a) Plant 1 is located at 1132 North Cullen Street, Rensselaer, Indiana.

(b) Plant 2 is located at 1133 North Cullen Street, Rensselaer, Indiana.

Since the two (2) plants are located in contiguous properties, have the same SIC codes and are owned by one (1) company, they will be considered one (1) source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	Combustion	42	2.0	8,200	500

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 15, 2000, with additional information received on December 19, 2000.

Emissions Calculations

See Appendix A of this document for detailed emission calculations (Appendix pages 1 through 4).

Potential to Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.1
PM-10	0.2
SO_2	0.0
VOC	24.4
CO	2.6
NO_x	0.0

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29) of VOC is less than 25 tons per year, but greater than 5 tons per year. Therefore, the source is subject of 326 IAC 2-5.5.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Jasper County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Jasper County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Jasper County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.1
PM10	0.2
SO_2	0.0
VOC	24.4
CO	2.6
NO_x	0.0

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) These emissions were based on data provided in the facility's permit application.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 073-12988-00023 is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no national emission standards for hazardous air pollutants (NESHAPs) (326 IAC 14 and 40 CFR 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

This rule does not apply as potential VOC emissions are less than 25 tons per year.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This rule does not apply as potential HAP emissions are less than 10 tons per year.

Conclusion

The operation of this mattress manufacturing facility shall be subject to the conditions of the attached proposed Registration No. 073-12988-00023.

Appendix A: Emissions Calculations
Summary Potental Emissions
Company Name: **Ohio Mattress Licensing and Components Group**
Address City IN Zip: **1132 and 1133 North Cullen Street, Rensselaer, Indiana 47978**
CP: **073-12988**
Plt ID: **073-00023**
Reviewer: ERG/RB
Date: December 27, 2000

Potential emissions (Tons/ Year)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.2	0.2	0.0	0.0	0.2	2.6
Lubricating Oil					24.24	
Cold Cure Injection**					Negligible	
Total	0.2	0.2	0.0	0.0	24.4	2.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

** VOC emissions from Cold Cure Injection process negligible as documented in the 1995 TSD.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Ohio Mattress Licensing and Components Group**
Address City IN Zip: **1132 and 1133 North Cullen Street, Rensselaer, Indiana 47978**
CP: **073-12988**
Plt ID: **073-00023**
Reviewer: ERG/RB
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Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
7.0	61.3

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	0.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	0.2	0.0	0.0	0.2	2.6

*PM and PM10 emission factors are filterable and condensable PM combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Ohio Mattress Licensing and Components Group**
Address City IN Zip: **1132 and 1133 North Cullen Street, Rensselaer, Indiana 47978**
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HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.439E-05	3.679E-05	2.300E-03	5.519E-02	1.042E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.533E-05	3.373E-05	4.292E-05	1.165E-05	6.439E-05

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Lubricating Oil

Company Name: **Ohio Mattress Licensing and Components Group**
Address City IN Zip: **1132 and 1133 North Cullen Street, Rensselaer, Indiana 47978**
CP: **073-12988**
Plt ID: **073-00023**
Reviewer: ERG/RB
Date: December 27, 2000

VOC emissions wil be from the volatization of lubricating oils

Dry Slide Oil

Amount of Dry Slide Oil Used:	5.00	Gal/week
	260.00	Gal/year
Density of Dry Slide Oil	7.14	Lbs/gal
Mass of Dry Slide Oil Used	0.93	Tons per year
Current hours of operation	7488.00	Hours per year
Adjsutment for 8,760 hours/year	1.09	Maximum Tons per year
Volatilization rate	90.00	percent
Potential Emissions	0.98	Tons/year

Lubrication oil

Lubricating Oil usage	5.90	Lbs/hr
	25.84	Tons/year
Volatilization rate	90.00	percent
Potential Emissions	23.26	Tons/year

Total VOC emissions from Oil Usage 24.24 Tons/year

Appendix A: Emissions Calculations
Lubricating Oil

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Lubrication oil

Lubricating Oil usage	5.90	Lbs/hr
	25.84	Tons/year
Volatilization rate	90.00	percent
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Total VOC emissions from Oil Usage 24.24 Tons/year